

Use of polytetrafluoroethylene (PTFE)-covered stent in treatment of RCA aneurysm

A 55-year-old man presented to the emergency room with acute severe retrosternal chest pain radiating to his left arm. His past medical history includes coronary artery disease (CAD) with multiple percutaneous coronary interventions (PCI). The patient was asymptomatic before this episode. He was haemodynamically stable, and physical exam was unremarkable. EKG showed sinus bradycardia without ischaemic changes. Cardiac biomarkers were normal. He underwent cardiac catheterisation, which showed a 10 mm right coronary artery (RCA) aneurysm at the site of a previously placed drug eluting stent (figure 1 and online supplementary video 1). He underwent PCI with polytetrafluoroethylene (PTFE)-covered stent (Jostent) to the RCA aneurysm, resulting in complete resolution of chest pain (figure 2 and online supplementary videos 2 and 3). He was discharged on dual antiplatelet therapy of aspirin and prasugrel.

Coronary artery aneurysms are rare (1.5%–5%) and have a predilection to the RCA.¹ Though atherosclerotic CAD is the most common cause, coronary aneurysms after placement of drug eluting stents have been increasingly reported.¹ Presentation is highly variable, ranging from incidental asymptomatic finding during angiography to more severe complications like rupture, thrombosis, distal embolisations, infarction and sudden cardiac death.¹ Treatment includes surgery, percutaneous covered stents or conservative management with anti-



Figure 1 Coronary angiography showing right coronary artery aneurysm at the site of previously placed Drug eluting stent.



Figure 2 Cessation of flow to aneurysmal sac after covered stent placement.

platelet therapy.^{1 2} Choice of therapy depends on size of the aneurysm, thrombus burden and presence of complications like cardiac haematomas, however, there is no consensus on the ideal approach to management.^{1 2} The placement of a PTFE-covered stent to prevent blood flow to aneurysmal sac through PCI is a safer, less invasive alternative to surgery.²

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